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**REMARKS**

Claims 1-10, 12-13, and 18-36, as amended, and new claims 37-40 are pending in this application. In this Response, Applicant has amended certain claims. In light of the Office Action, Applicant believes these amendments serve a useful clarification purpose, and are desirable for clarification purposes, independent of patentability. Accordingly, Applicant respectfully submits that the claim amendments do not limit the range of any permissible equivalents.

In particular, independent claims 1 and 28 have been rewritten to further clarify the invention. Accordingly, various claims have been rewritten to maintain consistency with the subject matter recited in the independent claims from which they depend. In addition, claims 11 and 14-17 have been cancelled. Finally, claims 37-40 have been added to recite additional embodiments of the invention fully supported by the Written Description. *See, e.g.*, Pages 9-17. As no new matter has been added, Applicant respectfully requests entry of these amendments at this time.

**ALLOWABLE SUBJECT MATTER**

Applicant appreciates Examiner's recognition of allowable subject matter in claim 16 if rewritten in independent form. In response, claim 1 has been rewritten to include the features of claim 16 and any intervening features previously recited in claims 11 and 14-15.

**THE OBJECTION TO CLAIM 28**

The Examiner objected to claim 28 for the reason provided on page 2 of the Office Action. In light of the amendments to claim 28, Applicant respectfully submits that the objections are overcome.

**THE REJECTION UNDER 35 U.S.C. § 112**

Claim 36 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In light of the amendment to the claim at issue, Applicant respectfully submits that this rejection is overcome. As such, reconsideration and withdrawal of the rejection is respectfully requested.

**THE REJECTIONS UNDER 35 U.S.C. § 103**

Claims 1, 4-5, 9-14, 17-18, 21, and 24-32 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent Publication No. 2002/0173367 to Gobush ("Gobush '367") in view of U.S. Patent

Publication No. 2002/0173367 for the reasons provided on pages 3-10 of the Office Action. In addition, claims 2-3, 34, and 36 were rejected under § 103(a) as obvious over Gobush '367 in view of Kiraly and further in view of U.S. Patent Publication No. 2002/0155896 to Gobush (Gobush '896) as explained on pages 10-11 and 16-17. The Examiner also rejected claims 6-8, 15, 19-20, 22-23, and 35 under § 103(a) as obvious over Gobush '367 in view of Kiraly and further in view of U.S. Patent No. 5,575,719 to Gobush (Gobush '719) as explained on pages 12-15 and 17-18. Finally, claim 33 was rejected under § 103(a) as obvious over Gobush '367 in view of Kiraly and further in view of U.S. Patent No. 5,471,383 to Gobush (Gobush '383) as explained on page 16. As discussed in greater detail below, no combination of Gobush '367 and Kiraly renders obvious the pending claims.

First, as recognized by the Examiner, neither Gobush '367 nor Kiraly disclose or suggest the invention previously recited in claim 16. As such, the rejection appears to be overcome with respect to claim 1 and those depending therefrom. Second, as stated by the Examiner, Gobush '367 lacks a single camera system and a rotatable calibration fixture having a pivot point and a plurality of contrasting areas. In an attempt to remedy the deficiencies of the Gobush '367 patent with respect to the presently recited invention, the Examiner has cited Kiraly for its single camera set up and calibration feature. Office Action at Page 4. However, the calibration in Kiraly is limited to camera calibration in the factory using a target 158. Para. 0057. In fact, the only adjustments to the camera system in the field are through the use of an accelerometer or inclinometer. Para. 0061.

In contrast, the method presently recited in claim 28 and those claims depending therefrom features a series of calibration steps that employ a calibration fixture and the striking instrument to create a three-dimensional global coordinate system. After the system is calibrated, the three-dimensional positions of the second plurality of contrasting areas are again obtained to determine swing characteristics. In light of Kiraly's complete lack of teaching with regard to the presently recited method, a skill artisan would not have been motivated to arrive at the present invention absent the use of impermissible hindsight.

With regard to the remaining secondary references, Applicant respectfully submits that, in light of the limited manner in which the Examiner uses Gobush '896, Gobush '719, and Gobush '383, these references do not remedy the deficiencies of the Gobush '367 / Kiraly combination with respect to the presently recited invention. For example, Gobush '367 does not disclose or suggest a rotatable calibration fixture that allows calibration of a one camera system through pivoting. Office

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Action at Page 4. The systems described in Gobush '896 and the '719 patent are based on two camera systems and, thus, the calibration of those systems similarly requires the use of images from both cameras. See, e.g., Gobush '896 at Para. 0058 and Gobush '719 at Col. 3, line 54 to Col. 4, line 67.

Thus, Applicant respectfully submits that no combination of the cited references render obvious the present invention. Accordingly, reconsideration and withdrawal of the § 103 rejections based thereon is respectfully requested.


### CONCLUSION

All claims are believed to be in condition for allowance. If the Examiner believes that the present amendments still do not resolve all of the issues regarding patentability of the pending claims, Applicant invites the Examiner to contact the undersigned attorneys to discuss any remaining issues.

No fees are believed to be due at this time. Should any fee be required, however, please charge such fee to Bingham McCutchen LLP Deposit Account No. 50-4047, Order No. 20002.0313.

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Respectfully submitted,  
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